

APPLICANT(S): YELLIN, Daniel
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AMENDMENTS TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims indicated as cancelled:

Claim 1 (Currently amended): A wave digital filter, comprising:

an adapter having at least first and second inputs and a
controlled gate to delay disable the propagation into or within the
adapter of a valid signal value received at the first input into or
within the adapter based on the validity of when an invalid signal
value is received at the second input an input signal value.

Claim 2 (Previously presented): A wave digital filter according to claim 1,
wherein the controlled gate of the adapter comprises a latch.

Claim 3 (Previously presented): A wave digital filter according to claim 1,
wherein the controlled gate of the adapter comprises a strobe
gate.

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Claim 4 (Canceled)

Claim 5 (Canceled)

Claim 6 (Canceled)

Claim 7 (Canceled)

Claim 8 (Canceled)

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Claim 9 (Currently amended): A wave digital filter according to claim 7 1, wherein the ~~delay unit~~ controlled gate comprises ~~an uncontrolled~~ a delay element unit.

Claim 10 (Currently amended): A wave digital filter according to claim 7 1, comprising two or more adapters, wherein the ~~delay unit~~ controlled gate is able to delay the propagation of the valid signal value such that the valid signal value enters one of the two or more adapters substantially simultaneously with another valid signal value received by ~~another adapter~~ one of the two or more adapters.

Claim 11 (Original) A filter according to claim 7, wherein the value whose propagation is delayed for the predetermined time comprises a valid value.

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Claim 12 (Canceled)

Claim 13 (Currently amended) A wave digital filter according to claim 1, wherein the adapter comprises two or more ports, at least one port including one of said first and second inputs and an output.

Claim 14 (Canceled)

Claim 15 (Canceled)

Claim 16 (Previously presented): A wave digital filter according to claim 1, wherein the adapter comprises a multiplier.

Claim 17 (Canceled)

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Claim 18 (Previously presented): A wave digital filter according to claim 1,
wherein the two or more adapters comprise two or more different
types of adapters.

Claim 19 (Canceled)

Claim 20 (Canceled)

Claim 21 (Canceled)

Claim 22 (Canceled)

Claim 23 (Currently amended): A method comprising:

~~delaying propagation of an input signal value into a memoryless
adapter of a wave digital filter until the input signal value is
valid; and~~

enabling the memoryless an adapter of a wave digital filter to calculate
new signal values based on signal values received at two or more inputs
of the adapter only when the valid signal value values are received at all
inputs of the adapter.

Claim 24 (Currently amended): A method according to claim 23, ~~wherein providing the input~~
~~comprises comprising~~ providing an input which carries a result from a different
adapter.

Claim 25 (Currently amended) A method according to claim 23, wherein ~~delaying~~
~~the input enabling~~ comprises delaying enabling for after a predetermined
time.

Claim 26 (Currently amended) A method according to claim 23, ~~wherein delaying~~
~~the input comprises comprising~~ delaying disabling the adapter from

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calculating the new signal values until all the signal values required for performing the calculation are expected to be valid.

Claim 27 (Currently amended) A method according to claim 23, wherein ~~delaying disabling the input~~ comprises delaying disabling the an input of the adapter using a latch.

Claim 28 (Canceled)

Claim 29 (Currently amended): A method comprising:

delaying disabling propagation of an input signal a first valid signal value on received at a first input of a an memoryless adapter of a wave digital filter until a second valid signal value is received ~~on at~~ a second input of the ~~memoryless~~ adapter; and

enabling the adaptor to calculate the delayed one or more new signal values based on the first and second valid signal values value.

Claim 30 (Currently amended): A method according to claim 29, wherein disabling delaying the value on the first input comprises delaying propagation of the signal value received at the first input for a predetermined time.

Claims 31 – 40 (Canceled)

Claim 41 (Currently amended): A wave digital filter according to claim 10, wherein the controlled gate is able to delay the propagation of the signal value values from one adapter of the two or more adapters to another adapter of the two or more adapters until a predetermined number of changes occur in the signal value values occur.

Claims 42 – 52 (Canceled)

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Claim 53 (Previously presented) A wave digital filter, comprising:

a controlled gate to control the propagation of a value generated
by a first adapter to a second adapter based on the validity of the value.

Claim 54 (New): An adapter of a wave digital filter, comprising:

two or more inputs operably coupled to two or more
functional units; and

two or more enable lines operably coupled to the two or
more functional units, respectively, wherein the two or more
enable lines provide control signals to enable the operation of the
two or more functional units, respectively, when valid signal
values are received on the two or more inputs.

Claim 55 (New): The adapter of claim 54, wherein the two or more inputs are
operably coupled to the two or more functional units.

Claim 56 (New): The adapter of claim 54, wherein the number of functional
units is substantially equal to the number of the adapter inputs.

Claim 57 (New): A wave digital filter, comprising:

a first adapter having at least three inputs and at least
three outputs;

a second adapter having at least three inputs and at
least three outputs;

a first latch operably coupled to a first input of the first
adapter;

a first register operably coupled to a first output of the
first adapter;

a second latch operably coupled to the first register and
to a second input of the first adapter; and

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a third latch operably coupled to a second output of the first adapter and to one of the inputs of the second adapter.

Claim 58 (New): The wave digital filter of claim 57, wherein one of the outputs of the second adapter is operably coupled to a third input of the first adapter.

Claim 59 (New): The wave digital filter of claim 57, further comprising a control unit to provide controls signals to the first latch, the second latch and the third latch.

Claim 60 (New): The wave digital filter of claim 57, wherein the first latch, the second latch and the third latch are able to hold signal values and wherein the control unit is able to open the first latch, the second latch and the third latch based on the signal values they hold.
